

IN THE CLAIMS

Please substitute the following set of claims for prior claim sets.

Claims 1-17 (Cancelled)

18. (Previously Presented) An exhaust-gas purifying process comprising:

preparing a catalyst for purifying exhaust gas by forming the catalyst of iridium, a rare earth metal oxide, and sulfur; and at least one element selected from a group consisting of calcium, strontium and barium, as catalyst active substances, wherein the iridium forms a complex oxide with said at least one element;

setting an exhaust-gas temperature in a range of 200°C to 700°C at an inlet to the catalyst for purifying the exhaust gas; and

directing the exhaust gas from an internal combustion engine through the catalyst for purifying the exhaust gas so as to reduce nitrogen oxides in the exhaust gas.

19. (Previously Presented) An exhaust-gas purifying process comprising:

preparing a catalyst for purifying exhaust gas comprising by forming the catalyst of iridium, a rare earth metal oxide, and sulfur; and at least one element selected from a group consisting of calcium, strontium and barium, as catalyst active substances, wherein the iridium forms a complex oxide with said at least one element;

setting an exhaust-gas temperature in a range of 200°C to 700°C at an inlet to the catalyst for purifying the exhaust gas; and

directing the exhaust gas from an internal combustion engine through the catalyst for purifying the exhaust gas so as to reduce hydrocarbons, carbon monoxide and nitrogen oxides in the exhaust gas from the internal combustion engine.

20. (Previously Presented) An exhaust-gas purifying process comprising:

preparing a catalyst comprising iridium, a rare-earth metal and sulfur, wherein the rare-earth metal is an oxide containing at least one element selected from a group consisting of cerium, lanthanum, yttrium, neodymium and praseodymium;

setting an exhaust-gas temperature in a range of 200°C to 700°C at an inlet to the catalyst for purifying exhaust gas; and

directing an exhaust gas from an internal combustion engine through the catalyst to purify the exhaust gas and reduce nitrogen oxides in the exhaust gas.

21. (Previously Presented) An exhaust-gas purifying process comprising:

preparing a catalyst comprising iridium, a rare-earth metal and sulfur, wherein the rare-earth metal is an oxide containing at least one element selected from a group consisting of cerium, lanthanum, yttrium, neodymium and praseodymium;

setting an exhaust-gas temperature in a range of 200°C to 700°C at an inlet to the catalyst; and

directing an exhaust gas from an internal combustion engine to pass through the catalyst for purifying exhaust gas so as to reduce hydrocarbons, carbon monoxide and nitrogen oxides in the exhaust gas from the internal combustion engine.

22. (Previously Presented) An exhaust-gas purifying process comprising:

preparing a catalyst comprising iridium, a rare-earth metal and sulfur, wherein the rare-earth metal is a composite oxide containing at least one element selected from a group consisting of cerium, lanthanum, yttrium, neodymium and praseodymium, and at least one element selected from a group consisting of manganese, iron, cobalt, nickel, copper and zinc;

setting an exhaust-gas temperature in a range of 200°C to 700°C at an inlet to the catalyst for purifying exhaust gas; and

directing an exhaust gas from an internal combustion engine through the catalyst to purify the exhaust gas and reduce nitrogen oxides in the exhaust gas.

23. (Previously Presented) An exhaust-gas purifying process comprising:

preparing a catalyst comprising iridium, a rare-earth metal and sulfur, wherein the rare-earth metal is a composite oxide containing at least one element selected from a group consisting of cerium, lanthanum, yttrium, neodymium and praseodymium, and at least one element selected from a group consisting of manganese, iron, cobalt, nickel, copper and zinc

setting an exhaust-gas temperature in a range of 200°C to 700°C at an inlet to the catalyst; and

directing an exhaust gas from an internal combustion engine to pass through the catalyst for purifying exhaust gas so as to reduce hydrocarbons, carbon monoxide and nitrogen oxides in the exhaust gas from the internal combustion engine.

24. (New) The process as in claim 18 wherein:

preparation of the catalyst further comprises forming a support containing the iridium;

the sulfur further comprises a sulfate in the support, and

a content of the iridium is in a range of 0.5 to 10 percent by weight with respect to the support, and a weight ratio of the sulfur and the iridium is from 1:5 to 50:1, and

wherein the support is formed from a group of elements consisting of at least one of an alumina having the sulfate and sulfur, a support compound containing the sulfate, and a fire resistant inorganic compound.

25. (New) The process as in claim 24 wherein the alumina consists of a group of at least one of aluminum phosphate, crystalline aluminosilicate and silico-aluminophosphate.

26. (New) The process as in claim 24, wherein the support is formed as a mixed sintered support body.

27. (New) The process as in claim 24, wherein the fire resistant compound is titania.